SAFETY, SECURITY, AND TRANSIT PLANNING AND OPERATIONS

Friday, April 20, 2018
2:00 PM
VTA Conference Room B-106
3331 North First Street
San Jose, CA

AGENDA

CALL TO ORDER

1. ROLL CALL

2. PUBLIC PRESENTATIONS:

This portion of the agenda is reserved for persons desiring to address the Committee on any matter not on the agenda. Speakers are limited to 2 minutes. The law does not permit Committee action or extended discussion on any item not on the agenda except under special circumstances. If Committee action is requested, the matter can be placed on a subsequent agenda. All statements that require a response will be referred to staff for reply in writing.

3. ORDERS OF THE DAY

CONSENT AGENDA

4. ACTION ITEM - Approve the Regular Meeting Minutes of February 16, 2018.

REGULAR AGENDA

5. DISCUSSION ITEM - Review and discuss a performance report on VTA’s Express bus program.

6. INFORMATION ITEM - Receive information on the Fast Transit Program.

7. INFORMATION ITEM - Receive Marketing Report.
OTHER ITEMS


10. Items of Concern and Referral to Administration.

11. Review Committee Work Plan. (Evans)

12. Committee Staff Report. (Evans)

13. Chairperson's Report. (Chavez)


15. ANNOUNCEMENTS

16. ADJOURN

In accordance with the Americans with Disabilities Act (ADA) and Title VI of the Civil Rights Act of 1964, VTA will make reasonable arrangements to ensure meaningful access to its meetings for persons who have disabilities and for persons with limited English proficiency who need translation and interpretation services. Individuals requiring ADA accommodations should notify the Board Secretary’s Office at least 48-hours prior to the meeting. Individuals requiring language assistance should notify the Board Secretary’s Office at least 72-hours prior to the meeting. The Board Secretary may be contacted at (408) 321-5680 or board.secretary@vta.org or (408) 321-2330 (TTY only). VTA’s home page is www.vta.org or visit us on www.facebook.com/scvta. (408) 321-2300: 中文 / Español / 日本語 / 한국어 / tiếng Việt / Tagalog.

Disclosure of Campaign Contributions to Board Members (Government Code Section 84308) In accordance with Government Code Section 84308, no VTA Board Member shall accept, solicit, or direct a contribution of more than $250 from any party, or his or her agent, or from any participant, or his or her agent, while a proceeding involving a license, permit, or other entitlement for use is pending before the agency. Any Board Member who has received a contribution within the preceding 12 months in an amount of more than $250 from a party or from any agent or participant shall disclose that fact on the record of the proceeding and shall not make, participate in making, or in any way attempt to use his or her official position to influence the decision. A party to a proceeding before VTA shall disclose on the record of the proceeding any contribution in an amount of more than $250 made within the preceding 12 months by the party, or his or her agent, to any Board Member. No party, or his or her agent, shall make a contribution of more than $250 to any Board Member during the proceeding and for three months following the date a final decision is rendered by the agency in the proceeding. The foregoing statements are limited in their entirety by the provisions of Section 84308 and parties are urged to consult with their own legal counsel regarding the requirements of the law.
All reports for items on the open meeting agenda are available for review in the Board Secretary’s Office, 3331 North First Street, San Jose, California, (408) 321-5680, the Monday, Tuesday, and Wednesday prior to the meeting. This information is available on VTA’s website at http://www.vta.org and also at the meeting.

NOTE: THE BOARD OF DIRECTORS MAY ACCEPT, REJECT OR MODIFY ANY ACTION RECOMMENDED ON THIS AGENDA.
CALL TO ORDER

The Regular Meeting of the Safety, Security, and Transit Planning and Operations (SSTPO) Committee was called to order at 2:01 p.m. by Vice Chairperson Jones in Conference Room B-106, Santa Clara Valley Transportation Authority (VTA), 3331 North First Street, San José, California.

1. ROLL CALL

<table>
<thead>
<tr>
<th>Attendee Name</th>
<th>Title</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cindy Chavez</td>
<td>Chairperson</td>
<td>Absent</td>
</tr>
<tr>
<td>David Cortese</td>
<td>Alternate Member</td>
<td>Absent</td>
</tr>
<tr>
<td>Dev Davis</td>
<td>Alternate Member</td>
<td>N/A</td>
</tr>
<tr>
<td>Lan Diep</td>
<td>Member</td>
<td>Present</td>
</tr>
<tr>
<td>Glenn Hendricks</td>
<td>Alternate Member</td>
<td>N/A</td>
</tr>
<tr>
<td>Chappie Jones</td>
<td>Vice Chairperson</td>
<td>Present</td>
</tr>
<tr>
<td>Bob Nunez</td>
<td>Member</td>
<td>Present</td>
</tr>
</tbody>
</table>

*Alternates do not serve unless participating as a Member.

A quorum was present.

2. PUBLIC PRESENTATIONS:

Roland Lebrun, Interested Citizen, expressed concern about a lewd behavior of a light rail passenger and would like VTA security to follow up on the incident.

3. ORDERS OF THE DAY

There were no Orders of the Day.

4. Elect the Committee’s Vice Chairperson for Calendar Year 2018

M/S (Diep/Nunez) to nominate Chappie Jones to serve as Vice Chairperson for 2018.

M/S/C (Nunez/Diep) to close nominations for Vice Chairperson for 2018.

M/S/C (Diep/Nunez) to elect Chappie Jones as Vice Chairperson for 2018.

NOTE: M/S/C MEANS MOTION SECONDED AND CARRIED AND, UNLESS OTHERWISE INDICATED, THE MOTION PASSED UNANIMOUSLY.
RESULT: Elected 2018 Vice Chairperson [Unanimous] – Agenda Item #4

Mover: Lan Diep, Member
Seconder: Bob Nunez, Member
Ayes: Diep, Jones, Nunez
Noes: None
Absent: Chavez

CONSENT AGENDA

5. Regular Meeting Minutes of December 15, 2017

M/S/C (Diep/Nunez) to approve the Regular Meeting minutes of December 15, 2017.

6. 2018 SSTPO Committee Meeting Schedule

M/S/C (Diep/Nunez) to approve the 2018 Safety, Security, and Transit Planning and Operations (SSTPO) Committee Meeting Schedule.

RESULT: APPROVED [UNANIMOUS] – Consent Agenda Items #5-6

Mover: Lan Diep, Member
Seconder: Bob Nunez, Member
Ayes: Diep, Jones, Nunez
Noes: None
Absent: Chavez

REGULAR AGENDA

7. Paratransit Service and Technology

Inez Evans, Chief Operating Officer and Staff Liaison, introduced Lauren Rosiles, Management Analyst provided a presentation entitled Access Paratransit Technology Overview. A presentation highlighting the following was provided: 1) Pass-Web MyAcess online; 2) EZ-Wallet Cashless Faring Solution; 3) Trip Broker – Communication Gateway; 4) Driver Mate; 5) IVR – Reservations, Cancellations and Callbacks; 6) Certification Management; 7) Suspension Management; 8) View Point; and 9) timeline of technology updates.

On order of Vice Chairperson Jones and there being no objection, the Committee received an update on the Paratransit Service and Technology.
8. **Collision Avoidance Technologies (CAT)**

Gary Miskell, Chief Information Officer, provided a presentation entitled Collision Avoidance Technologies: 1) Safety is VTA’s #1 Priority; 2) Collision Avoidance Technologies; 3) Sound Transit CAT Test Results; 4) VTA’s Mobileye Collision Avoidance System; 5) VTA’s Pilot Test Results; 6) VTA’s Next Steps for CAT.

The committee’s discussion ensued about the bus sensors that monitor blind spots and pedestrian activities.

**Public Comments**

Doug Muirhead, Interested Citizen, expressed appreciation about the presentation and noted that he looks to VTA for new ideas, technologies and best practices to share with the City of Morgan Hill.

Mr. Lebrun expressed his support for passenger facing video monitors and noted it will be a deterrent for bad behavior. He added that this will make the system safer for passengers and can attract more riders.

On order of Vice Chairperson Jones and there being no objection, the Committee received an update on the Collision Avoidance Technologies.

9. **FY2018 Second Quarter Transit Operations Performance and January 2018 Monthly Ridership and Fare Revenue Performance Reports**

a. **FY2018 Second Quarter Transit Operations Performance Report**

Ms. Evans provided a summary of the reports in the Second Quarter Transit Operations Performance Report (TOPR) including ridership statistics for VTA bus, VTA light rail, paratransit, and interagency partner (Altamont Commuter Express). She also reviewed the results on select key performance indicators. Vice Chairperson Jones suggested staff explore capturing the market of long haul trips that are dominated by the shuttle buses.

Nuria I. Fernandez, General Manager and CEO, stated that VTA is continuously conducting community outreach to determine transportation needs of the public. She added that a Transit Ridership Improvement working group was established to conduct data and trend analysis. Findings from the community outreach and working group will then be incorporated into the Next Network that will be implemented in conjunction to the opening of the Silicon Valley Rapid Transit (SVRT).

**Public Comment**

Mr. Lebrun expressed concern about the proposed funding cost of the Capitol Light Rail extension, and recommended using those funds to double track Caltrain to Gilroy instead. He provided information on the service provided by private buses. He also requested to receive information on light rail’s boarding per station every month.
On order of Vice Chairperson Jones and there being no objection, the Committee received the FY2018 Second Quarter Transit Operations Performance report.

b. January 2018 Monthly Ridership and Fare Revenue Performance

Ms. Evans provided an overview of the ridership and fare revenue performance for January 2018 noting a decrease in light rail ridership, increases in bus ridership, fare revenue, and average fare boarding compared to the same period last year.

On order of Vice Chairperson Jones and there being no objection, the Committee received a report on the January 2018 Monthly Ridership and Fare Revenue Performance.

OTHER ITEMS

10. VTA's Safety and Security Programs

There was no report on VTA’s Safety and Security Programs.

11. Items of Concern and Referral to Administration

There were no Items of Concern and Referral to Administration.

12. Review Committee Work Plan

On order Vice Chairperson Jones and there being no objection, the Committee reviewed the Committee Work Plan.

13. Committee Staff Report

Vice Chairperson Jones noted that the Committee Staff Report was contained on the dais.

14. Chairperson's Report

There was no Chairperson’s Report.

15. Determine Consent Agenda for the March 1, 2018 Board of Directors Meeting

CONSENT:

None

REGULAR:

None

16. ANNOUNCEMENTS

Member Diep greeted everyone Happy Lunar New Year!
17. **ADJOURNMENT**

On order of Vice Chairperson Jones and there being no objection, the meeting was adjourned at 2:50 p.m.

Respectfully submitted,

Michael Diareasco, Board Assistant  
VTA Office of the Board Secretary
BOARD MEMORANDUM

TO: Santa Clara Valley Transportation Authority
   Safety, Security, and Transit Planning and Operations

THROUGH: General Manager, Nuria I. Fernandez

FROM: Director - Planning & Programming, Chris Augenstein

SUBJECT: Express Bus Performance Report

FOR INFORMATION ONLY

BACKGROUND:

In an effort to inform discussions about the highest and best uses of VTA transit dollars, this memo provides a performance report of VTA’s Express bus program, which has remained largely unchanged for years and is in need of a fresh look in light of changes to the regional travel market and operating environment.

Because the introduction of Bay Area Rapid Transit (BART) service to Santa Clara County will have a significant impact on long-distance travel patterns, VTA’s long-distance Express bus network was not studied as part of the Next Network transit service plan. As a first step in analyzing the Express bus network for potential changes, this memo provides a review of the Express bus network’s performance.

VTA currently operates 13 Express bus routes specifically designed to serve commuters making long-distance trips to major employment centers. These 100-series routes typically offer a few one-way trips during each weekday commute period. These long-distance routes complement VTA’s non-Express bus and light rail routes that focus on the shorter-distance travel market.

VTA currently operates four Express routes that serve as a connection with BART at the Fremont BART station in Alameda County: Express 120 (Lockheed Martin and Shoreline), 140 (Mission College), 180 (Great Mall and Aborn/White), and 181 (Diridon Station). Per the BART Silicon Valley Berryessa Extension project plan, the Next Network service plan allocates the resources from these routes to non-Express routes that will connect with BART at Milpitas and Berryessa. As such, these four routes will be discontinued upon introduction of the Next Network and are not discussed in this performance report.

DISCUSSION:

This performance report provides a high-level review of VTA’s Express bus program.
Attachment A provides a map of the Express network and a summary of Express performance. All costs and performance figures are from the most recent quarter of service (October 2017 -- December 2017).

THE EXPRESS NETWORK

VTA operates nine Express routes that are not related to BART and will continue to operate as part of the Next Network service plan. Each Express route follows a consistent design: one-way commuter service from a residential area (sometimes several) to an employment area in the morning and the reverse in late afternoon. They typically utilize the freeway’s High Occupancy Vehicle lane (HOV) network for non-stop travel between the home and work ends. Service is provided during weekday peak periods only; there is no midday or weekend service. Many Express riders are daily riders and enjoy a reliable and fast commute. The Express routes can be grouped by the employment area they serve (see Attachment A map):

To Stanford Research Park:

Express 101 from Camden & Highway 85
Express 102 from South San Jose
Express 103 from Eastridge
Express 104 from Penitencia Creek Transit Center

To Moffett Park:

Express 121 from Gilroy and Morgan Hill
Express 122 from South San Jose

To Downtown San Jose:

Express 168 from Gilroy and Morgan Hill

To Mountain View:

Express 185 from Gilroy and Morgan Hill

To IBM/Bailey Avenue (reverse commute; southbound in the AM):

Express 182 from Palo Alto and Vallco

THE EXPRESS FLEET

Express service is provided with specialized over-the-road coaches designed for long-distance service. Express buses are Gillig 40-foot diesel-electric hybrid premium coaches (ADA accessible) designed specifically for non-stop long-distance service, featuring:

- Reclining, high-back seats
- Free Wi-Fi
- Personal reading lights
- Overhead storage racks
- Footrests
- Single door at the front
VTA owns 50 Express vehicles (20 manufactured in 2011, 20 in 2014, and 10 in 2016), though at current service levels and traffic speeds, the Express network of nine routes requires just 40 vehicles at peak (including a 20% “spares” buffer). Because they lack a rear door to facilitate simultaneous boarding and alighting, Express vehicles are not well-suited for use on non-Express routes. However, VTA deploys some of the extra Express buses on a handful of special school-oriented “trippers” on school days (because these trippers have relatively low turnover).

PERFORMANCE

Attachment B shows key performance indicators for the Express network, using data from the most recent quarter of October - December 2017 and using FY18 unit costs. Express ridership, like public transit ridership in general, fluctuates from quarter to quarter depending on the season; performance figures from the October - December quarter as discussed in this memo are representative of the routes’ yearlong “typical” performance. Note the first group of columns report boardings, service hours, and costs per weekday. The second group of columns show planning-level cost and fare revenue estimates by route.

Rider Demographics

In 2017, VTA conducted an on-board survey (with over 15,000 responses) to gather information about transit riders’ trip patterns, preferences, and demographics. Survey responses provide insight into Express ridership -- 55% are male, 8% are students, 96% have at least one vehicle in the household, and 93% are between ages 25 and 64. In addition, the data also provides insight into the demographics of Express bus riders as compared to non-Express bus riders.

Survey responses indicate that when compared to non-Express riders, Express riders have much higher income, are nearly twice as likely to have a driver license, much less likely to have a mobility disability, and much more likely to have proficiency in English:

<table>
<thead>
<tr>
<th></th>
<th>Express Riders</th>
<th>Non-Express Riders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household income &gt; $100,000</td>
<td>48%</td>
<td>10%</td>
</tr>
<tr>
<td>Household income &lt; $50,000</td>
<td>6%</td>
<td>38%</td>
</tr>
<tr>
<td>Have a driver license</td>
<td>91%</td>
<td>47%</td>
</tr>
<tr>
<td>Have a mobility disability</td>
<td>&lt; 1%</td>
<td>7%</td>
</tr>
<tr>
<td>Have limited English proficiency</td>
<td>&lt; 1%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Ridership and Productivity

Express routes collectively had 1,298 daily boardings, or 649 roundtrip riders, which is low. However, ridership is not the only measure of an Express route’s success. Express routes also serve a unique purpose to provide long-distance service for riders making long journeys. As such, rider trip distances are comparatively long on the Express network. The average Express bus rider made a 30-mile journey onboard the bus, which is significantly longer than the average 3-mile journey for non-Express riders.

All of the Express routes had very low productivity, measured in boardings per total hour. This key performance metric is used to evaluate the effectiveness of VTA transit dollars by
determining the number of riders carried per hour of service. The nine Express routes had between 2.8 and 9.9 boardings per hour, with an average of 7.2 boardings per hour. For comparison, the non-Express bus average was 20.7 boardings per hour. VTA’s Transit Service Guidelines, to be considered by the Board of Directors in April 2018, establishes a minimum productivity standard of 15 boardings per hour, which none of the Express routes would meet.

Importantly, the Express routes’ low productivity is largely due to their service design and not a problem of “empty buses.” In fact, the average Express bus carries about 20 riders, half a full bus. It is the design of Express service itself that limits productivity. Urban transit is most productive on routes with high turnover, where riders board and alight all along the length of a route. Turnover on Express routes, however, is much lower and therefore boardings per hour of service is lower. In fact, in an ideal scenario (indicated on the last row of the Attachment B table) where every Express bus was 100% full (a rider in every seat), the Express network would average just 15.5 boardings per hour, still far lower than VTA’s non-Express network average.

Cost and Fare Revenue

Based on performance for the quarter, the nine Express routes had an annualized fully-allocated cost of approximately $10 million, with an estimated $500,000 in offsetting fare revenue. This equates to a farebox recovery rate of 5% and a net cost per boarding (after fare revenue) of $27.95. For comparison, VTA’s non-Express bus farebox recovery for the quarter was 11% with a net cost per boarding of $7.63. (These are planning-level estimates of the Express routes’ costs and fare revenues; systemwide figures are reported in VTA’s Comprehensive Annual Financial Report and Biennial Budget.)

For many years, VTA received capital funds from the Federal Transit Administration (Sections 5307 and 5309) as a result of operating Express buses in High Occupancy Vehicle lanes, however VTA no longer receives these funds due to eligibility changes in these funding programs. The funds had been a significant and longstanding justification for continuing the Express program, as the funds helped offset the cost of the Express bus program. Due to changes in the federal program's definition of "fixed guideway," VTA Express buses no longer qualify for these funds.

On a unit cost basis, Express bus service costs more to provide than non-Express bus service due to several factors that drive up its unit cost (service hours):

1. It costs more to buy, store, and maintain a sub-fleet of Express vehicles that are only used for brief periods each day and that are not well-suited for non-Express routes.

2. Express bus service schedules are less efficient because buses have to travel long distances before and after their revenue trips. (Non-revenue time for VTA’s Express routes makes up 42% of their total hours, which is significantly higher than 8% for non-Express routes.)

3. Express service is less efficient to schedule into full-time operator shifts because the service is only offered during short peak periods.
The unique Express service characteristics of low ridership turnover, long-distance non-stop travel, and higher unit costs are the reason transit operators like VTA charge a higher Express fare. VTA’s adult cash Express fare during the study period was $4, compared to $2 for non-Express routes. However, about 50% of Express riders boarded free with a VTA EcoPass unlimited ride pass (renamed SmartPass on January 1) provided through their employer, school, or other institution. On January 1, VTA rolled out a new fare structure that aims to improve the average fare per boarding on the Express network through higher fares and a restructured pass program.

**Collaboration**

Many of VTA’s Express routes are the result of close collaboration between VTA and regional institutions and employment groups, such as Stanford Research Park and San Jose State University. In coordination with employer groups and institutions, VTA staff continually monitor passenger loads and ridership patterns to inform service adjustments designed to respond to rider demand. As such, staff continually adjust schedules, modify route alignments, add trips where warranted, and discontinue unpopular trips. Also note that changes to VTA Express routes would directly impact the SmartPass (formerly EcoPass) program.

**NEXT STEPS**

This performance report is provided for reference as VTA discusses the highest and best use of its transit operating dollars. VTA can proceed with one of two options or a combination thereof regarding the Express bus network as listed below. Board discussion and guidance on express service given current performance and VTA’s financial condition would be beneficial as staff proceeds with the next steps.

1. VTA can continue to operate the Express bus network as it exists today, but conduct a planning study to evaluate the network and develop a new Express bus service plan for implementation in 2019. The study would be similar to the Next Network Transit Service Plan for the non-Express bus network that was conducted between 2015 and 2017. This option would assume no change to the Express bus network’s overall level of service (no increase or decrease in resources).

2. VTA can explore the redistribution of some or all of the resources devoted to the Express bus network to more effective transit solutions. Staff can develop a proposal to redistribute Express bus resources to more productive transit routes in the non-Express bus network. Staff can also explore alternative commuter service solutions that may be more cost-effective than Express buses, including vanpools, carpools, and other public-private partnerships.

**ADVISORY COMMITTEE DISCUSSION:**

The Citizens Advisory Committee considered this item on April 11, 2018. Several committee members encouraged staff to maintain the Express program and for staff to conduct a service redesign study to improve the network, despite the fundamental
Committee members asked 1) for clarification on the fare for Express bus, 2) for the marginal cost of Express bus service, 3) can staff consolidate unproductive Express trips into fewer trips to increase productivity, 4) can buses/drivers start in south county instead of the garage to reduce deadhead time, and 5) asked if the onboard survey response rate was adequate to accurately represent the demographics of Express riders. Staff responded 1) the adult fare for Express bus is currently $4.50, 2) staff will follow up to provide the marginal cost of service, 3) staff have always consolidated trips where possible to improve productivity, 4) it would not be possible to have drivers/buses start in south county because VTA does not have a garage there, and 5) there were over 300 survey responses from Express riders, which is more than adequate to provide a statistically valid representation of rider demographics.

During discussion, committee members noted that long-distance Express buses are valuable because they provide significant Vehicle Miles Traveled (VMT) reductions, encouraged staff to engage in a robust marketing effort to attract more riders, voiced support for the Express buses as a "critical" part of the network, and encouraged coordination with private commuter shuttles.

The Technical Advisory Committee considered this item on April 11, 2018. Two committee members expressed support for the Express buses and encouraged staff to conduct a broad comprehensive study to examine the Express bus network, including looking at alternatives, particularly coordination with Caltrain. Committee members asked how VTA Express bus performance compares to the Highway 17 bus, and staff responded that the Highway 17 buses are "relatively full" but that two factors are important with the Highway 17 bus, one being that costs are shared with our partner and not borne by VTA alone, and second being that the Highway 17 bus fare is much higher so its farebox recovery rate is better. During discussion, committee members noted that the Express bus fare is quite low and very competitive with driving, encouraged staff to utilize a service model that puts Express buses in highway express lanes, encouraged looking at the market for connections to the BART stations, encouraged staff to look at increasing fares, and encouraged staff to look at historical performance during the study.

Prepared By: Jay Tyree
Memo No. 6460
VTA Express

excludes Fremont BART Express routes; farebox and net cost are planning-level estimates

performance for October - December 2017

9 routes
50 Express vehicle fleet size
40 vehicles needed for peak service (incl. spares)
649 roundtrip riders per day
30 miles average trip length
$10M annual operating cost (fully-allocated)
5% average farebox recovery
$27.95 net cost per rider

Next Network Transit Service Plan
VTA Express Network

Express Route
Express Route Non-Stop Segment

to Stanford Research Park

101 Camden & Hwy 85 — Palo Alto
2 trips each direction daily
13 passengers/trip (33% full)

102 South San Jose — Palo Alto
7 trips each direction daily
22 passengers/trip (56% full)

to Moffett Park

103 Eastridge — Palo Alto
4 trips each direction daily
20 passengers/trip (51% full)

104 Penitencia Creek — Palo Alto
2 trips each direction daily
19 passengers/trip (49% full)

121 Gilroy — Moffett Park
6 trips each direction daily
17 passengers/trip (44% full)

122 South San Jose — Moffett Park
1 trip each direction daily
20 passengers/trip (51% full)

168 Gilroy — San Jose
7 trips each direction daily
14 passengers/trip (51% full)

182 Palo Alto — IBM/Bailey Ave
1 trip each direction daily
14 passengers/trip (36% full)

185 Gilroy — Mountain View
3 trips each direction daily
9 passengers/trip (23% full)

to Mountain View

to downtown San Jose

to Mountain View

Attachment A 5.a
### Table: VTA EXPRESS routes

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Boardings</th>
<th>Revenue Hours</th>
<th>Total Hours</th>
<th>Gross Cost</th>
<th>Fare Revenue</th>
<th>Net Cost</th>
<th>Boardings / Total Hour</th>
<th>Farebox Ratio</th>
<th>Net Cost / Boarding</th>
<th>Rev HR / Tot HR</th>
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</thead>
<tbody>
<tr>
<td><strong>102</strong> South San Jose -- Palo Alto</td>
<td>306</td>
<td>20</td>
<td>31</td>
<td>$6,514</td>
<td>$481</td>
<td>$6,033</td>
<td>9.9</td>
<td>7%</td>
<td>$19.69</td>
<td>64%</td>
</tr>
<tr>
<td><strong>122</strong> South San Jose -- Lockheed/Moffett</td>
<td>40</td>
<td>2</td>
<td>4</td>
<td>$849</td>
<td>$62</td>
<td>$787</td>
<td>9.9</td>
<td>7%</td>
<td>$19.85</td>
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<tr>
<td><strong>103</strong> Eastridge Transit Center -- Palo Alto</td>
<td>156</td>
<td>11</td>
<td>17</td>
<td>$3,532</td>
<td>$245</td>
<td>$3,287</td>
<td>9.3</td>
<td>7%</td>
<td>$21.07</td>
<td>65%</td>
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<tr>
<td><strong>104</strong> Penitencia Creek Transit Center -- Palo Alto</td>
<td>77</td>
<td>6</td>
<td>9</td>
<td>$1,967</td>
<td>$120</td>
<td>$1,846</td>
<td>8.2</td>
<td>6%</td>
<td>$24.08</td>
<td>67%</td>
</tr>
<tr>
<td><strong>168</strong> Gilroy Transit Center -- San Jose Diridon</td>
<td>284</td>
<td>18</td>
<td>38</td>
<td>$8,073</td>
<td>$446</td>
<td>$7,627</td>
<td>7.4</td>
<td>6%</td>
<td>$26.82</td>
<td>47%</td>
</tr>
<tr>
<td><strong>182</strong> Palo Alto -- IBM/Bailey Ave</td>
<td>28</td>
<td>3</td>
<td>4</td>
<td>$825</td>
<td>$44</td>
<td>$781</td>
<td>7.2</td>
<td>5%</td>
<td>$27.99</td>
<td>67%</td>
</tr>
<tr>
<td><strong>121</strong> Gilroy Transit Center -- Lockheed/Moffett</td>
<td>298</td>
<td>28</td>
<td>49</td>
<td>$10,405</td>
<td>$468</td>
<td>$9,937</td>
<td>6.1</td>
<td>5%</td>
<td>$33.31</td>
<td>57%</td>
</tr>
<tr>
<td><strong>101</strong> Camden &amp; Hwy 85 -- Palo Alto</td>
<td>52</td>
<td>6</td>
<td>9</td>
<td>$1,896</td>
<td>$82</td>
<td>$1,814</td>
<td>5.8</td>
<td>4%</td>
<td>$34.67</td>
<td>64%</td>
</tr>
<tr>
<td><strong>185</strong> Gilroy Transit Center -- E Whisman/Shoreline</td>
<td>56</td>
<td>12</td>
<td>20</td>
<td>$4,247</td>
<td>$88</td>
<td>$4,159</td>
<td>2.8</td>
<td>2%</td>
<td>$74.28</td>
<td>58%</td>
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<tr>
<td><strong>Express routes sum/average</strong></td>
<td>1,298</td>
<td>105</td>
<td>181</td>
<td>$38,309</td>
<td>$2,037</td>
<td>$36,272</td>
<td>7.2</td>
<td>5%</td>
<td>$27.95</td>
<td>58%</td>
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<tr>
<td><strong>...ideal scenario (every Express bus 100% full)</strong></td>
<td>2,808</td>
<td>105</td>
<td>181</td>
<td>$38,309</td>
<td>$4,409</td>
<td>$33,900</td>
<td>15.5</td>
<td>12%</td>
<td>$12.07</td>
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For planning purposes only. All cost and revenue figures are planning-level estimates.
Express Bus Performance Report
Spring 2018

April Standing Committees
Next Network Transit Plan Excludes Express Program

Next Network Transit Plan

LIGHT RAIL
RAPID
FREQUENT
LOCAL
EXPRESS
History of VTA Express Bus Program

- Many routes have operated since late 1970’s, some newer
- Productivity historically poor, despite many service improvements
- **2011 Express Bus Business Plan** was most recent comprehensive study
  - Employer engagement
  - Rider and community surveys
  - Market research
  - New service plan

➢ *Performance continues to decline*
Express Bus Service Design

- Long-distance trips
- Home ↔ Work trips
- Travel non-stop in HOV lanes

- Weekday peak periods only
- One-way (in commute direction)
<table>
<thead>
<tr>
<th>Route</th>
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<tbody>
<tr>
<td>101</td>
<td>Campbell, SR-85 Park &amp; Ride</td>
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<tr>
<td>102</td>
<td>South San Jose (Santa Teresa)</td>
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<td>103</td>
<td>East San Jose (Eastridge)</td>
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<td>104</td>
<td>Milpitas, Berryessa</td>
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<td>182</td>
<td>Palo Alto, Vallco</td>
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<td>121</td>
<td>Gilroy, Morgan Hill</td>
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<td>122</td>
<td>South San Jose (Santa Teresa)</td>
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<tr>
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<td>Gilroy, Morgan Hill</td>
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<tr>
<td>185</td>
<td>Gilroy, Morgan Hill</td>
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</tbody>
</table>

**Stanford Research Park**

**Moffett Park**

**Downtown San Jose**

**North Bayshore**
Express Bus Vehicles

Similar to standard 40-foot buses, but with premium features:

- Reclining, high-back seats
- Wi-Fi
- Personal reading lights
- Overhead storage racks
- Footrests
- Single door at the front

VTA owns 50
Express Bus Rider Demographics

- Household income above $100,000: Express riders 48%, all VTA riders 10%
- Have a driver license: Express riders 91%, all VTA riders 47%
- Have a mobility disability: Express riders 1%, all VTA riders 6%
- Have limited English proficiency: Express riders 1%, all VTA riders 7%

Source: VTA 2017 onboard rider survey
Ridership for All Nine Express Bus Routes

1,298 daily boardings
649 daily riders making a roundtrip
30 miles average trip distance
$10 million
annual cost of service
(fully-allocated cost)

$500,000
fare revenue
Productivity for All Nine Express Bus Routes

- **18** riders onboard each bus trip
- **46%** full (seats occupied)
- **7.2** boardings per hour
- **5%** farebox recovery
- **$27.95** cost per boarding
Productivity for All Nine Express Bus Routes

18 riders onboard each bus trip
46% full (seats occupied)
7.2 boardings per hour

5% farebox recovery
11% farebox recovery
$27.95 cost per boarding
$7.63 cost per boarding

VTA local bus
Fundamental Challenges of Express Bus Service Design

- On long-distance non-stop routes, ridership turnover is near zero, so productivity and fare revenue will be low
- **Higher unit cost** for Express bus service than local bus
  - Sub-fleet of specialized vehicles (maintenance, training, etc.)
  - Long travel before + after trips ("non-revenue" time)
  - Inefficient scheduling of full-time operators for peak-only services
“Perfect Ridership” Scenario (every seat occupied)

- 39 riders onboard each bus trip
- 100% full (seats occupied)
- 15.5 boardings per hour
- 12% farebox recovery
- $12.07 cost per boarding
Route-by-Route Productivity (Weekday Boardings per Hour)

Express routes vs local routes

Minimum productivity standard
Express Bus Benefits and Challenges

**Benefits**
- Can connect isolated communities
- Convenient service for riders
- Congestion reduction?

**Challenges**
- Low ridership
- Low farebox recovery
- High unit cost to provide service
- Few riders per dollar spent
- Rider demographics
Staff Seeks Guidance for Express Bus Future

- Conduct service redesign study for Express bus network?
- Continue to fund Express bus program at current level?
  - Reallocate some/all Express bus funds to more productive uses?
- Explore alternative fare strategies?
- Other strategies to explore?
How to Spend $10 Million

Continue operating Express buses at 7 boardings per hour

1,298 daily boardings
5% farebox recovery

Enhance the Frequent Network at 22 boardings per hour

4,000 daily boardings
12% farebox recovery
BOARD MEMORANDUM

TO: Santa Clara Valley Transportation Authority
    Safety, Security, and Transit Planning and Operations

THROUGH: General Manager, Nuria I. Fernandez

FROM: Director - Planning & Programming, Chris Augenstein

SUBJECT: Fast Transit Program

FOR INFORMATION ONLY

BACKGROUND:

The average speed of VTA’s transit service is significantly declining. When transit speeds decline, on-time reliability suffers and transit becomes less appealing to riders. Furthermore, slowing routes become increasingly more expensive to operate as more buses or trains are needed to maintain the same frequency of service. This is especially concerning on VTA’s highest ridership routes, which are among the slowest in VTA’s system, particularly during peak periods. Several solutions exist to address declining speeds, and many other transit agencies have found success with them, but they will require coordination between VTA and its Member Agencies to implement them.

The Fast Transit Program is designed to address one of VTA’s Business Lines as described in its 2016 Strategic Plan: A network of Fast, Frequent and Reliable Transit Service. As currently envisioned, the Fast Transit Program is a policy and planning effort that seeks to accomplish the goals of increasing transit speeds and improving on-time reliability in VTA’s transit service network. The Program’s three major components are (1) the development and adoption of a transit speed policy that is supported at the local agency level, (2) a comprehensive examination of the causes of VTA’s declining speeds and reliability (3) a targeted set of cost-effective recommended short and long term speed improvement projects.

DISCUSSION:

Declining Speeds

The decline in transit operating speeds - if not corrected - will continue to reduce VTA’s cost-
effectiveness, and the usefulness of VTA transit to the public. Over the past 30 years, VTA’s travel speeds have declined approximately 20 percent, though the decline has been steeper in recent years, amounting to about 1.0 to 1.5 percent annually. This means more buses must be added to routes to maintain frequency, and these resources must be taken from other routes or added at an additional cost.

For example, the average weekday travel speed of Route 22 has declined 34 percent, from 15.7 miles per hour in 1995 to 10.3 miles per hour today. The number of buses needed to provide 15-minute service in the weekday peak period, when travel speeds average an even lower 9 miles per hour, has increased from 15 to 22 over that time—a 47 percent increase in the operating cost. The decline in travel speed over that time has made riding Route 22 less appealing and is a likely contributor to stagnant or decreasing ridership despite increased travel demand and land use intensification along the corridor.

**Financial Impact of Decreased Transit Travel Speeds**

Each one percent of speed decline corresponds to about $3.2 million that VTA must spend to maintain the same frequency of service. This is money spent that provides no additional value to riders; in fact, their experience is worse due to slower travel speeds.

The decline in travel speeds has ramifications for the quantity of routes that can be operated. If this trend cannot be changed, VTA will perpetually be looking to trim routes or frequencies from its network to feed the needs of other routes, which undermines and weakens the frequent network it endeavors to operate. Furthermore, the declining appeal of VTA transit threatens to lower fare revenue and encourage riders to find other ways to get around, such as driving, which adds to congestion, which in-turn causes transit travel speeds to decrease.

**Ridership Impact of Decreased Transit Travel Speeds**

A 2016 TransitCenter survey (TransitCenter: Who’s on Board 2016) of transit riders in 17 US metro areas found that the aspects of the transit experience that most heavily impact one’s likelihood to use transit include frequency, travel time, and reliability. Declining transit travel speeds erode all three of these. As more money is spent on fewer routes, agencies will be tempted to reduce frequencies as a cost-saving measure. The longer the trip takes, the less appealing it becomes to riders. Longer travel times also correlate with decreased on-time reliability as the types of delay experienced and the potential range of their duration widens.

**Benefits of Increased Transit Travel Speeds**

Increasing transit travel speeds is essential for improving public transit ridership and cost-effectiveness. It makes transit more attractive to non-riders and improves the experience for current riders, encouraging them to take more transit trips. More ridership brings in more farebox revenue, which lowers the per-passenger subsidy paid by transit agencies and provides funding that can be invested in more transit service. More transit service, more ridership and
moving people in more space-efficient ways is good for the overall mobility of the region. It may also offer benefits to other modes by reducing potential conflicts at problem locations. Increasing transit speeds will allow routes to make more stops per hour and record more boardings per hour, which is VTA’s baseline metric for route performance.

**Causes for Speed Declines**

There are three main causes for transit speed declines:

- **Increased vehicle congestion** - Economic growth and land use intensification increase demand on the transportation network, increasing congestion and slowing all vehicles. Increased congestion can also make it more difficult for buses to pull back into the travel lane after picking up and dropping off passengers. The American Public Transportation Association calls out slow transit speeds due to increased congestion as a fundamental concern in critical need of attention (APTA: Understanding Recent Ridership Changes, March 2018).

- **Increased delay at signals** - As traffic congestion levels increase, city traffic engineers respond by adjusting traffic signal timing. Often, this includes lengthening signal cycles or giving more time to some movements. In some cases, this means transit vehicles experience more time waiting at red lights.

- **Increased stop frequency and dwell time at stops/stations** - Increased ridership can lead to buses making more stops to board and alight passengers and longer boarding times as more fares must be collected or passes inspected. Since VTA ridership has been declining since 2016, this is unlikely to be a significant contributor to VTA’s transit speed declines.

**Potential Solutions**

Transit agencies across the nation are struggling with declines in transit travel speeds and on-time performance, and many have undertaken efforts to address this problem. Solutions generally fall into smaller scale, low-cost, low-infrastructure strategies that can be implemented piecemeal and large scale, high-cost strategies that require considerable construction.

**Small Scale Strategies**

- **Transit signal priority** - The approach to signal timing has in some cities evolved from maximizing vehicle-throughput to maximizing person-throughput. Accordingly, a strong case can be made that transit vehicles that carry large volumes of passengers should be prioritized over private automobiles that carry fewer passengers. Signal priority can take the form of extending green lights for approaching transit vehicles, shortening red light durations for waiting transit vehicles or turning a red light green as a transit vehicle approaches. On some corridors consideration should be given to providing transit with transit signal pre-emption which allows buses or trains to pre-empt signals to get a green light.
light at the intersection. These types of improvements can offer a high benefit at a low cost as they are infrastructure-minimal.

- **Bus stop balancing** - Choosing bus stop locations is a balance between ease of access, which encourages close stop spacing, and speed, which encourages wide stop spacing. The route designer must balance convenience to the rider who is boarding/alighting with the delay incurred by riders who are traveling through. Transit agencies in New York, Baltimore, Providence, Portland, and Columbus have all reported success in combatting declining transit speeds by removing or consolidating stops that record few boardings or are located in close proximity to other stops.

- **Fast boarding** - Transit agencies have used multiple approaches to make boarding faster. New York MTA has eliminated on-board fare payment on Select Bus routes. Select Bus riders must use a MTA card or cash to buy a ticket at the station. San Francisco Muni has reported time savings after allowing passengers to board through the rear doors if they use electronic payment like a Clipper card. LA Metro is giving away 150,000 TAP cards to Orange Line BRT riders to encourage less cash payment and more rear-door boarding. Increasing Clipper Card and mobile ticketing app usage (like VTA’s EZfare app) complement this goal.

- **Eliminating timepoints** - Buses ahead of schedule would no longer have to wait at timepoints, which delays customers on board. Ideally, time point elimination would be combined with dynamic headway tracking technology, which allows drivers to track where they are in relation to other buses. This allows drivers to maintain even spacing.

### Large Scale Strategies

- **Dedicated transit lanes** - Some agencies have found that dedicated transit lanes are the most effective way to maximize person throughput and prevent traffic congestion from delaying high-capacity vehicles. While this can be difficult, politically, it is easily the most effective way of decreasing travel speeds and improving on-time reliability. New York, Chicago and Los Angeles have invested heavily in dedicated transit lanes.

- **In-lane stopping** - In places where buses face difficulty entering the travel lane after leaving a bus stop, such as a duckout or a curbside stop located in the parking lane, allowing the bus to stop in the travel lane to board and alight passengers can help improve travel speeds. This strategy is best accompanied by fast boarding strategies to minimize the delay incurred by vehicles that are behind the bus.

### Rider Information and Experience

- **Re-define on time performance** - On time performance is a leading indicator of reliability and rider experience because the rider can count on the bus arriving to the stop on time. VTA defines on-time as departing a location within three minutes before and five minutes after its published scheduled time. Reducing the metric to the industry standard
of one minute before and 4 minutes after the published time, will better align VTA’s metric with a rider’s experience of on-time service.

- **Expand real-time information** - Riders like real-time information because knowing when the bus or train will arrive removes uncertainty and sets realistic expectations (TransitCenter: Who’s on Board 2016).

**Municipal Role and Responsibility**

The causes of transit travel speed declines are largely outside of the VTA’s control. Traffic congestion is driven by land use decisions that require long trips and an urban form that promotes travel by automobile. Additionally, absent a special circumstance, each city controls and maintains their streets and signal timing. As such, addressing transit speed declines will require city coordination and support. Planning to accommodate growth near transit and in ways that encourage short trips helps prevent speed declines. Prioritizing transit at signals increases transit travel speeds and maximizes overall mobility.

Preliminary discussions with city staff have indicated an interest in making transit faster and many cities’ general plans support fast and reliable transit (Attachment A), but implementation often requires policy guidance. As the Fast Program develops, VTA will seek input from local jurisdictions on opportunities for, and challenges to, increasing transit speeds. Ideally, local jurisdictions adopt policies that prioritize the need to speed up transit especially on VTA’s frequent service network.

**Policy Development**

This effort will seek to place a greater importance on faster transit within VTA and will pursue development of a policy statement as such. Additionally, VTA will welcome opportunities to help local jurisdictions develop policies that can improve transit travel speeds. Speeding up transit will rely on policy guidance from VTA’s Board of Directors as well as input from VTA’s advisory committees and local jurisdictions. VTA’s Board of Directors will be asked to consider the actions necessary to fix speed problems, such as reconsidering VTA’s priorities about stop spacing and resource allocation. One time capital expenditures to implement transit preferential solutions will be far less costly than continuing to address declines in speed and reliability by adding more service hours. We also hope the VTA Board will guide local jurisdictions to adopt the VTA transit speed policy or endorse their own set of compatible actions.

**Next Steps**

Staff will perform a comprehensive speed and reliability analysis to identify the causes of transit speed declines and will start a conversation with Santa Clara County cities about the potential for
improving transit travel speeds. Staff will also work with VTA’s bus operators and light rail operators to gain input on causes of speed declines from their in-the-field experience. Future discussion with VTA committees and the Board of Directors will inform potential policy development.

Prepared By: Tamiko Percell
Memo No. 6486
## Campbell

<table>
<thead>
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<tr>
<td>The City of Campbell General Plan</td>
<td>11/6/2011</td>
<td>Land Use and Transportation</td>
<td>Goal LUT-2</td>
<td>Pg. LUT-44 (Pg. 71 PDF)</td>
<td>Strategy LUT-2.1l: Public Transit: Coordinate with regional transportation agencies including VTA and the Metropolitan Transportation Commission (MTC) to improve public transportation service and promote public transit as a viable alternative to driving, particularly within the Priority Development Areas (PDA).</td>
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<td></td>
<td></td>
<td>Land Use and Transportation</td>
<td>Goal LUT-2</td>
<td>Pg. LUT-44 (Pg. 71 PDF)</td>
<td>Strategy LUT-2.1m Transit Schedule Integration: Support the integration of light-rail, bus, and shuttle schedules and multi-modal transit stations to reduce the loss of time associated with using public transportation.</td>
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## Santa Clara County General Plan 1995-2010

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|                                          | 12/20/1994| Countywide Issues and Policies-Transportation | Transportation System Management (TSM) | Pg. F-18 (Pg. 102 PDF) | C-TR 10 Transportation System Management (TSM) measures should be employed to ensure maximum operating efficiency of the existing system of roads and highways, including but not limited to the following:  
a. signal synchronization, signal pre-emption for transit vehicles  
b. ramp metering  
c. traffic surveillance and traffic advisory signs |
|                                          |          | Countywide Issues and Policies-Transportation | Implementation Recommendations | Pg. F-20 (Pg. 104 PDF) | C-TR(i) 12 Continue to implement techniques which increase highway and expressway efficiency, including:  
a. designation of high occupancy vehicle lanes  
b. construction of special freeway on-ramps for buses, carpools, vanpools  
c. traffic signal preemption systems for transit vehicles on freeway on-ramps  
d. a coordinated program of signalization, channelization, ramp metering  
e. traffic signal preemption systems for rail transit vehicles on city streets |

## Cupertino

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<tr>
<td>Cupertino General Plan Community Vision 2015-2040</td>
<td>10/20/2015</td>
<td>Chapter 5 Mobility Element</td>
<td>Goal M-4 Transit</td>
<td>Pg. M-18 (Pg. 184 PDF)</td>
<td>POLICY M-4.1: TRANSIT AGENCIES Coordinate with VTA to improve transportation service, infrastructure and access in the city, and to connect to transportation facilities such as Caltrain and VTA light rail stations.</td>
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<tr>
<td></td>
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<td>Chapter 5 Mobility Element</td>
<td>Goal M-4 Transit</td>
<td>Pg. M-19 (Pg. 185 PDF)</td>
<td>POLICY M-4.5: ACCESS TO TRANSIT SERVICES Support right-of-way design and amenities consistent with local transit goals to improve transit as a viable alternative to driving.</td>
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<td>Chapter 5 Mobility Element</td>
<td>Goal M-8</td>
<td>Pg. M-23 (Pg. 189 PDF)</td>
<td>POLICY M-8.3: TRANSPORTATION SYSTEMS MANAGEMENT (TSM) PROGRAMS Employ TSM strategies to improve efficiency of the transportation infrastructure including strategic right-of-way improvements, intelligent transportation systems and optimization of signal timing to coordinate traffic flow.</td>
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## Gilroy 2040 General Plan

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<tr>
<td>Gilroy 2040 General Plan</td>
<td>Dec-15</td>
<td>Chapter 6 Transportation and Circulation</td>
<td>13 Transit</td>
<td>Pg. 6-8 (Pg. 8 PDF)</td>
<td>Action 13.D Signal Preemption for Buses. In accordance with the recommendations of the Bay Area Air Quality Management District in the 2000 Clean Air Plan, study signal pre-emption for buses on arterial streets with a high volume of bus traffic.</td>
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<tr>
<td></td>
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<td>Chapter 6 Transportation and Circulation</td>
<td>12 Traffic Circulation and Parking</td>
<td>Pg. 6-8 (Pg. 8 PDF)</td>
<td>Action 12.J Signal Timing. In accordance with the recommendations of the Bay Area Air Quality Management District in the 2000 Clean Air Plan, continue and expand local signal timing programs.</td>
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## Los Altos

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<tr>
<td>Los Altos General Plan 2002-2020</td>
<td>Nov-02</td>
<td>Circulation Element</td>
<td>Local Circulation System</td>
<td>Pg. 28 (Pg. 30 PDF)</td>
<td>C 6: TRAFFIC SIGNAL COORDINATION AND SYNCHRONIZATION Coordinate traffic signal operations with the State, County, and adjacent communities where feasible. Install coordinated signal systems on all major arterial roadways in the City to improve traffic flow as appropriate. Funding should be obtained from all available City, County, State and Federal sources, as well as developer contributions.</td>
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<td></td>
<td></td>
<td>Circulation Element</td>
<td>Transit</td>
<td>Pg. 30 (Pg. 32 PDF)</td>
<td>C 14: TRANSIT SERVICE LEVELS Work with the Santa Clara Valley Transportation Authority to ensure maintenance of adequate service levels and to evaluate the need to modify routing, bus stop and shelter locations, scheduling, and equipment. Route adjustments should be made to include major collectors through the City and service should link Downtown and other commercial areas to neighborhoods.</td>
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## Town of Los Altos Hills General Plan Update 2007

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<td>Town of Los Altos Hills General Plan Update 2007</td>
<td>4/26/2007</td>
<td>Circulation &amp; Scenic Roadways Element</td>
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### Los Gatos

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<td>Los Gatos 2020 General Plan</td>
<td>9/20/2010</td>
<td>Chapter 6 Transportation Element</td>
<td>Goal TRA-6</td>
<td>Pg. TRA-29 (Pg. 29 PDF)</td>
<td>Action TRA-6.2 Develop and implement signalization improvements to increase traffic flow at the intersections of Santa Cruz Avenue and Main Street, University Avenue and Main Street, Santa Cruz Avenue and Los Gatos/Saratoga Road, and University Avenue and Los Gatos/Saratoga Road.</td>
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<td></td>
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<td>Chapter 6 Transportation Element</td>
<td>Goal TRA-2</td>
<td>Pg. TRA-22 (Pg. 22 PDF)</td>
<td>Policy TRA-2.6 Street improvements such as curb cuts, sidewalks, bus stop turnouts, bus shelters, light poles, traffic signals, benches, and trash containers shall be planned as an integral part of development projects to ensure safe movement of people and vehicles and minimize disruption to the streetscape.</td>
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## Milpitas

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<tr>
<td>City of Milpitas General Plan</td>
<td>Dec-94</td>
<td>Chapter 3</td>
<td>Transportation Demand Management-Implementing Policy</td>
<td>Pg. 3-24 (Pg. 24 PDF)</td>
<td>3.c-I-1 Support regional planning efforts for the development of mass transit facilities such as transit priority for designated bus rapid transit, bus queue jump lanes, exclusive bus queue jump lanes, exclusive transit lanes, and other transit preferential treatments.</td>
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<tr>
<td></td>
<td></td>
<td>Chapter 3</td>
<td>Transportation Demand Management-Implementing Policy</td>
<td>Pg. 3-24 (Pg. 24 PDF)</td>
<td>3.c-I-3 Implement measures to enhance transit efficiency where feasible as such farside bus stop locations and bus stop pullouts.</td>
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## Monte Sereno

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<td>2035 General Plan City of Morgan Hill</td>
<td>7/27/2016</td>
<td>Transportation</td>
<td>Transit GOAL TR-6</td>
<td>Pg. TR-35 (Pg. 227 PDF)</td>
<td>Street Design for Improved Bus Service. Coordinate with VTA to provide improved local bus service and to encourage people to ride the bus for local as well as longer trips (e.g., to Gilroy and San Jose). The design of key arterial streets such as Hale/Santa Teresa, the Butterfield Corridor and Monterey Road should consider incorporating bus curb lanes or duckouts, enhanced stop amenities, transit signal priority, and supporting pedestrian improvements.</td>
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<td>Transit Demand Management GOAL TR-10</td>
<td>Pg. TR-47 (Pg. 239)</td>
<td>Transportation Demand Management Technologies. Work with VTA and the State to implement Transportation Demand Management technologies that can improve the performance, reliability, and safety of the transportation system, such as signal coordination, centralized traffic control, red-light and speed enforcement cameras, and real-time travel information.</td>
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## Mountain View

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<tr>
<td>Mountain View 2030 General Plan</td>
<td>7/10/2012</td>
<td>Chapter 3</td>
<td>Land Use Mix, Distribution and Intensity Goal LUD-22</td>
<td>Pg. 73 (Pg. 87 PDF)</td>
<td>LUD 22.6: Improved mobility. Support improved mobility within San Antonio Center for vehicles, transit, bicyclists and pedestrians.</td>
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<td>Chapter 4</td>
<td>Goals and Policies-Transit</td>
<td>Pg. 112 (Pg. 126 PDF)</td>
<td>MOB 5.1: Transit agencies. Coordinate with local and regional transit agencies including Metropolitan Transportation Commission, VTA, JPB (Caltrain), SamTrans and the California High-Speed Rail Authority to improve transportation service, infrastructure and access in the city.</td>
</tr>
</tbody>
</table>
## MOB 5.4: Connecting key areas
Identify and implement new or enhanced transit services to connect Downtown, El Camino Real, San Antonio, North Bayshore, East Whisman and NASA Ames Research Park.

## MOB 5.5: Access to transit services
Support right-of-way design and amenities consistent with local transit goals to make it easier to get to transit services and improve transit as a viable alternative to driving.

## LUD-3
Land use and transportation. Focus higher land use intensities and densities within a half-mile of public transit service, and along major commute corridors.

### Palo Alto

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<th>Plan</th>
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<tr>
<td>City of Palo Alto Comprehensive Plan 2030</td>
<td>11/13/2017</td>
<td>Transportation Element</td>
<td>Enhancing Rail and Bus Service</td>
<td>Pg. 81 (Pg. 89 PDF)</td>
<td>Program T1.12.3 Work with VTA to study the feasibility of, and if warranted provide, traffic signal prioritization for buses at Palo Alto intersections, focusing first on regional transit routes. Also, advocate for bus service improvements on El Camino Real such as queue jump lanes and curbside platforms.</td>
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<td>Transportation Element</td>
<td>Enhancing Rail and Bus Service</td>
<td>Pg. 81 (Pg. 89 PDF)</td>
<td>Program T1.11.1 Collaborate with Stanford University, VTA, Caltrain and other agencies to pursue improvements to the Palo Alto Transit Center area aimed at enhancing the pedestrian experience and improving circulation and access for all modes, including direct access to El Camino Real for transit vehicles.</td>
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### San Jose

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<td>Envision San Jose 2040: General Plan</td>
<td>11/1/2011</td>
<td>Chapter 5 Interconnected City</td>
<td>Grand Boulevard</td>
<td>Pg. 29 (Pg. 274 PDF)</td>
<td>Signal priority for transit vehicles, bus stops, and, where appropriate, exclusive transit lanes, are or can be provided. Other travel modes, including automobiles, bicycles, and trucks, are accommodated in the roadway, but if there are conflicts, transit has priority. (Grand Boulevards: 1) North First Street/Monterey Highway, 2) Capitol Avenue/Capitol Expressway, 3) Alum Rock Avenue/Santa Clara Street/The Alameda, 4) San Carlos Street/ Stevens Creek Boulevard, 5) Meridian Avenue, 6) Winchester Boulevard, 7) Saratoga Avenue)</td>
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<td></td>
<td>Chapter 6 Land Use and Transportation</td>
<td>Public Transit Goal TR-3 Maximize use of Public Transit</td>
<td></td>
<td>Pg.41 (Pg. 322 PDF)</td>
<td>TR-3.2 Ensure that roadways designated as Grand Boulevards adequately accommodate transit vehicle circulation and transit stops. Prioritize bus mobility along Stevens Creek Boulevard, The Alameda, and other heavily traveled transit corridors.</td>
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<td>Envision San Jose 2040: General Plan continued</td>
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<td>Pg.41 (Pg. 322 PDF)</td>
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<td>TR-3.6 Collaborate with Caltrans and Santa Clara Valley Transportation Authority to prioritize transit mobility along the Grand Boulevards identified on the Growth Areas Diagram. Improvements could include installing transit signal priority, queue jump lanes at congested intersections, and/or exclusive bus lanes.</td>
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<td>Chapter 6 Land Use and Transportation</td>
<td>Goal TR-12 Intelligent Transportation system</td>
<td>Pg. 54 (Pg. 335 PDF)</td>
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<td>TR-12.6 Work with VTA to implement transit vehicle priority that allows buses to travel on-schedule and provide reliable service.</td>
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<td>Chapter 6 Land Use and Transportation</td>
<td>Goal TR-5 Vehicular Circulation</td>
<td>Pg. 43 (Pg. 324 PDF)</td>
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<td>TR-5.2 Implement Intelligent Transportation Systems (ITS) strategies to maximize the efficiency of the existing transportation systems through advanced technologies, such as adaptive signal controls, real-time transit information, and real-time parking availability.</td>
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<td>Chapter 6 Land Use and Transportation</td>
<td>Goal TR-12 Intelligent Transportation system</td>
<td>Pg. 53 (Pg. 334 PDF)</td>
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<td>TR-12.2 Enhance the safety and effectiveness of transit service, bicycle, and pedestrian travel as alternative modes using advanced ITS systems.</td>
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<td>Chapter 6 Land Use and Transportation</td>
<td>Goal TR-12 Intelligent Transportation system</td>
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<td>TR-12.7 Collaborate with VTA to provide real-time transit information at key transit stations and stops, as well as via mobile devices, to provide users with real-time information on bus travel routes and times.</td>
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<td>Chapter 6 Land Use and Transportation</td>
<td>Public Transit Goal TR-3 Maximize use of Public Transit</td>
<td>Pg.41 (Pg. 322 PDF)</td>
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<td>TR-3.8 Collaborate with transit providers to site transit stops at safe, efficient, and convenient locations, and to develop and provide transit stop amenities such as pedestrian pathways approaching stops, benches and shelters, nighttime lighting, traveler information systems, and bike storage to facilitate access to and from transit stops.</td>
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<td>Chapter 6 Land Use and Transportation</td>
<td>Public Transit Goal TR-3 Maximize use of Public Transit</td>
<td>Pg.41 (Pg. 322 PDF)</td>
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<td>TR-3.9 Ensure that all street improvements allow for easier and more efficient bus operations and improved passenger access and safety, while maintaining overall pedestrian and bicycle safety and convenience.</td>
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<td>Chapter 6 Land Use and Transportation</td>
<td>Goal TR-4 Passenger Rail Service</td>
<td>Pg.41 (Pg. 322 PDF)</td>
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<td>TR-4.1 Support the development of amenities and land use and development types and intensities that increase daily ridership on the VTA, BART, Caltrain, ACE and Amtrak California systems and provide positive fiscal, economic, and environmental benefits to the community.</td>
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<td>Envision San Jose</td>
<td>11/1/2011</td>
<td>Chapter 6 Land Use and</td>
<td>Public Transit Goal TR-3 Maximize</td>
<td>Pg.41 (Pg. 322 PDF)</td>
<td>TR-3.3 As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute toward transit ridership. In addition, require that new development is designed to accommodate and to provide direct access to transit facilities.</td>
</tr>
<tr>
<td>City of Santa Clara 2010-2035 General Plan</td>
<td>11/16/2010</td>
<td>Chapter 5 Goals and Policies</td>
<td>Transit Network Policies</td>
<td>Pg. 5-98 (Pg. 174 PDF)</td>
<td>5.8.3-P3 Support transit priority for designated Bus Rapid Transit, or similar transit service, through traffic signal priority, bus queue jump lanes, exclusive transit lanes and other appropriate techniques.</td>
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<td>Chapter 5 Goals and Policies</td>
<td>El Camino Real Focus Area Goals</td>
<td>Pg. 5-48 (Pg. 124 PDF)</td>
<td>5.4.1-G4 Pedestrian, bicycle and transit priority for mobility in the El Camino Real Focus Area.</td>
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<td>Chapter 5 Goals and Policies</td>
<td>El Camino Real Focus Area Policies</td>
<td>Pg. 5-49 (Pg. 125 PDF)</td>
<td>5.4.1-P15 Work with Valley Transportation Authority to improve transit access, information and frequency along El Camino Real, including the implementation of a Bus Rapid Transit or similar transit service near Regional Mixed-Use areas.</td>
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<td>Chapter 5 Goals and Policies</td>
<td>El Camino Real Focus Area Policies</td>
<td>Pg. 5-50 (Pg. 126 PDF)</td>
<td>5.4.1-P16 Work with Valley Transportation Authority and Caltrans toward a roadway design for El Camino Real that includes narrower and/or reduced travel lanes, enhanced pedestrian facilities, wider sidewalks, street trees, planted medians, and enhanced signage and lighting, as well as transit and bicycle lanes without increasing overall right of- way requirements.</td>
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<td>Chapter 5 Goals and Policies</td>
<td>Downtown Focus Area Goals</td>
<td>Pg. 5-51 (Pg. 127 PDF)</td>
<td>5.4.2-G4 Pedestrian and transit priority for mobility in the Downtown Focus Area.</td>
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<td>Santa Clara</td>
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<td>General Plan City of Saratoga</td>
<td>11/17/2010</td>
<td>Circulation and Scenic</td>
<td>Transit-Policies</td>
<td>Pg. 42 (Pg. 47 PDF)</td>
<td>CI-Policy-4.2 Install transit improvements to improve service, increase safety, and maintain traffic flow on streets serving as transit routes.</td>
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<td>General Plan City of Saratoga</td>
<td>11/17/2010</td>
<td>Circulation and Scenic</td>
<td>Street System and Standards of</td>
<td>Pg. 40 (Pg. 45 PDF)</td>
<td>CI-Action-2.4 Install coordinated signal systems on all major arterial roadways in the City to improve traffic flow as appropriate. Funding should be obtained from all available City, County, State and Federal funding sources, and developer contributions.</td>
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<td>Highway Element update</td>
<td>Service - Implementation</td>
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<td>Sunnyvale General Plan</td>
<td>Apr-17</td>
<td>Chapter 3 Land Use and Transportation</td>
<td>Goal C: An Effective Multimodal Transportation System</td>
<td>Pg. 33 (Pg. 33 PDF)</td>
<td>Work in coordination with the Santa Clara Valley Transportation Authority (VTA) to ensure that the City creates streets that are transit-friendly, including bus signal preemption, adequate street and transit stop furniture, and appropriate lighting for nighttime riders.</td>
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<td>Chapter 3 Land Use and Transportation</td>
<td>Goal C: An Effective Multimodal Transportation System</td>
<td>Pg. 27 (Pg. 27 PDF)</td>
<td>As part of the development project review process in mixed-use and other high-intensity use areas, require that adequate transit stops or a dedicated transit lane is provided, even if bus stops are not yet located there. Ensure that off-street loading areas do not conflict with adjacent uses or impede pedestrian, bicycle, or transit access.</td>
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<td>Chapter 3 Land Use and Transportation</td>
<td>Goal C: An Effective Multimodal Transportation System</td>
<td>Pg. 33 (Pg. 33 PDF)</td>
<td>Monitor and participate in planning and implementation of the Grand Boulevard Initiative and Bus Rapid Transit (BRT) on El Camino Real to ensure that local Sunnyvale interests such as a quality streetscape, bicycle facilities, and pedestrian facility enhancements are incorporated and that capacity for transit does not sacrifice safety and service for other travel modes.</td>
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<td>Chapter 3 Land Use and Transportation</td>
<td>Goal A: Coordinated Regional and Local Planning</td>
<td>Pg. 17 (Pg. 17 PDF)</td>
<td>Promote transit-oriented and mixed-use development near transit centers such as Lawrence Station, Downtown, and El Camino Real and in neighborhood villages.</td>
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Fast Transit Program
Standing Committees

April 2018
Business line #1:

FAST  FREQUENT  RELIABLE
VTA Transit Speeds are Declining

14.1 MPH
1988

12.8 MPH
2005

12.6 MPH
2001

11.6 MPH
2016
Slowing Routes Require More Buses

Buses needed for 15-minute service on Route 22

- **1995**
  - 15.7 MPH
  - 15 Buses

- **2018**
  - 10.3 MPH
  - 22 Buses
Slowing Routes Require More Trains
FAST TRANSIT IS GOOD
Causes of Slow Transit

- Increased Traffic Congestion
- Increased Signal Delays
- Frequent Stops/Dwell Time
Potential Solutions

- Bus Stop Balancing
- Transit Signal Priority
- Faster Boarding
- Dedicated Transit Lanes
- In-lane Stopping
- Headway Management
- Real-time Information
Speed and Reliability Analysis
The Path Forward

• Adopt a transit speed policy for VTA and local jurisdictions
• Identify VTA’s slow speed locations and causes
• Recommend speed improvement projects
BOARD MEMORANDUM

TO: Santa Clara Valley Transportation Authority
    Safety, Security, and Transit Planning and Operations

THROUGH: General Manager, Nuria I. Fernandez

FROM: Director of Marketing & Customer Service, Bernice Alaniz

SUBJECT: Marketing Quartely Report

FOR INFORMATION ONLY

BACKGROUND:

In January 2018, the Santa Clara Valley Transportation Authority (VTA) kicked-off the New Year by launching several marketing efforts to showcase a much-improved rider experience. Enhancements to the rider experience include the introduction of EZfare, a new mobile fare payment app; free 2-hour transfers when customers use Clipper or EZfare to purchase a single ride fare; and expanded service on light rail, Rapid 522 and bus lines 72 and 73.

The introduction of FREE 2-hour transfers represents a watershed moment for VTA and further optimizes VTA’s value proposition. Previously, customers utilizing multiple routes were required to purchase an 8-Hour Excursion Pass (light rail), a day pass or multiple single-ride fares to complete a trip (with more than one transfer) within a 2-hour window. Now, customers can conveniently travel for up to two hours on a single-ride fare, when they use a Clipper card or EZfare. Additional efforts are being implemented to convey the added benefits of Clipper and EZfare payment to cash-paying customers.

With the launch of EZfare, customers now have a more user-friendly option to pay for fare with their mobile device. Previously this option was only available for special events but now EZfare users have the option of buying single-ride and day pass fares for not only one but for multiple passengers every day. These new features enrich the customer experience by providing the customer an immediately usable method to buy passes.

The beginning of the year also brought improvements to the following:

- For light rail (Mountain View - Winchester) - weekday, mid-day service now operates every 15 minutes over the entire line.
- For Rapid 522, weekday - service frequency before 6:00 a.m. and after 7:00 p.m.
improved from every 30 minutes to every 20 minutes, and service was extended to 11:00 p.m. Also, weekend service was extended to accommodate earlier/later trips and frequency was improved from every 30 to every 20 minutes.

For bus lines 72/73 - service hours was extended and frequencies improved.

**DISCUSSION:**

**December Activities**

- **Stuff the Bus** - As we have for over 17 years, VTA supported the well-known U.S. Marines Toys for Tots Drive at San Jose’s Christmas in the Park by providing buses at a drop off point for people to donate unwrapped toys for children in need. The Stuff the VTA Bus event was very successful this year; the first bus began overflowing with toys early in the afternoon so a second bus had to be called in to help continue the toy drive collection.

- **Downtown Ice** - As in previous years, VTA partnered with the San Jose Downtown Association for its annual Downtown Ice Rink, which ran from November 17, 2017 through January 15, 2018. VTA’s marketing efforts included: posters at light rail stations, carcards on light rail vehicles and an article in the VTA Take One. VTA customers were able to save $2 by showing a valid VTA Light Rail or Bus pass. It’s the only valid discount through the entire skating season.

- **Ugly Sweater** - In an effort to promote holiday cheer, VTA produced a holiday video to promote National Ugly Christmas Sweater Day. The video featured VTA staff members dressed in ugly holiday sweaters singing at multiple transit locations and on board VTA’s bus and light rail. The video—which shared VTA rider tips—was posted on social media throughout the holiday season and played in the River Oaks lobby. The video received over 900 views on Facebook.

- **Holiday Trolley** - VTA’s historic trolley was transformed into a winter holiday themed trolley from November 24 through December 31. The trolley offered free rides from Civic Center to Diridon Light Rail Stations and featured holiday tunes and festive decorations. On December 2, 2017, VTA hosted an on-board activity on the trolley, which attracted 367 riders. Passengers enjoyed cookies with VTA holiday cards attached to them, and children wrote letters to Santa on a section of the trolley.

- **Safety** - Safety is a top priority, so VTA continually makes an effort to push engaging content to promote safety on and around transit. December’s safety campaign featured additional messaging and promotions through various mediums. Safety car cards were produced for both bus and light rail and an original VTA branded comic strip addressing key safety concerns was included in VTA’s Take One. Staff also went door-to-door to hotels near VTA light rail stations to share safety brochures with hotel guests who are usually visitors and may not be familiar with the area and may be unaware of how to be safe around VTA light rail.
• **Pho Social Media** - In an effort to boost engagement, VTA hosted a social media contest to ask riders what their favorite Pho restaurant was near VTA transit. The contest took place in December 2017 and led to 43 votes, 1,884 engagements, and more than 88,300 impressions. The winning restaurant was Pho Thien Long in the Evergreen area of San Jose.

**January Activities**

• **New Year’s Eve Service** - As in previous years, VTA reminded the public not to drink and drive on New Year’s Eve. In an effort to take the worry out of planning, VTA provided free service throughout the holiday from 8 p.m. on December 31st to 5 a.m. on New Year’s Day. This free service was promoted on social media, VTA’s Take One and on VTA’s blog.

• **New Fares** - VTA launched new fares starting January 1, 2018; the highlights of these changes were free transfers with Clipper and EZfare, reduced youth fare, and service improvements on select VTA routes. VTA’s marketing efforts included promotion on radio, newspaper, social media in addition to VTA’s public-facing mediums: VTA Take-One articles, light rail station posters and digital signage, decals and car cards on all VTA vehicles, Gov-Delivery email blasts, and detailed information on vta.org.
  
  o **SmartPass** - VTA’s discounted annual pass for organizations was renamed from Eco Pass to SmartPass as part of the 2018 New Fares. In addition to rebranding of the program, VTA staff also communicated structural changes to existing partners via email and web content updates.

  o **Face-to-Face Outreach** - VTA ambassadors along with the help of an external marketing street team, Caribou, conducted fare outreach to the public at multiple locations across the County. Each location had a VTA representative present to answer questions and to give out free Clipper cards. A total of 49 outreach events took place from December 5, 2017 to January 8th with a total interaction count of 6,315 and 671 Clipper cards given away.

  o **EZFare** - VTA launched its new mobile ticketing app EZfare in conjunction with the new fare changes. The new app was marketed using street team ambassadors, social media, through various partnership agreements, and VTA’s Take One. With EZfare, riders can purchase passes for special events, single rides and day and express passes.

• **New Service** - VTA implemented service improvements for riders. The Mountain View-Winchester Light Rail line, Bus Rapid 522, and Bus Lines 72 and 73 saw significant improvements in frequency and service hours. Under the tagline, “More Frequent,” VTA advertised these improvements through radio and print media along with VTA Take-One articles, social media messaging, digital signage at light rail platforms, bus shelter posters along the bus routes, and two billboards in high-traffic locations along The Alameda and El Camino Real.
• **Women’s March** - On January 20, 2018, VTA partnered with the Women’s March San Jose to support participants and to encourage them to ride transit to the event. VTA’s marketing efforts included: Digital signage, posters, social media and 2 blog posts.

• **Coffee Social Media** - Coffee is near and dear to VTA riders, as shown by the engagement with January’s Best Coffee near VTA social media contest. This contest asked riders to brag about their favorite coffee places near transit and garnered 70 votes, 2,102 engagements and 70,600 impressions. It was our most engaging campaign of its kind to date.

**February Activities**

• **Stormwater** - In an ongoing effort to keep Santa Clara County clean, VTA pushed out a comic-strip format ad to promote using waste bins to prevent illegal dumping and trash or debris on the ground. Collateral included light rail station posters, digital signage at light rail platforms, and a VTA Take-One article in the February/March 2018 issue.

• **State of the Valley** - On February 9th VTA hosted a table at the State of the Valley and interacted with over 175 attendees. Two staff members represented VTA and discussed topics ranging from BART and EZfare, to light rail efficiency. Multiple fact sheets, newsletters and brochures were featured on the table, along with giveaway items like branded hand sanitizers, pens, and VTA bags.

**March Activities**

• **Cinequest** - As in previous years, VTA partnered with Cinequest for its annual Film Festival. The festival ran from February 27 through March 11 at three venues in downtown San Jose. VTA promoted EZfare as the best method of pre-purchasing fare to get to the festival using social media, light rail station posters and digital signage, car cards on VTA vehicles, bus tail ads, Cinequest and VTA websites, festival posters, 15-30 second video ads, and VTA Take-One articles.

• **St Patrick’s Day** - In an effort to prevent drunk driving on St. Patrick’s, VTA produced a Public Service Announcement radio spot to remind people to assign designated drivers or take transit to and from their celebrations. VTA also hosted a social media campaign in an effort to raise awareness.

• **Transit Driver Appreciation Day** - In order to celebrate the hard work VTA’s bus and light rail operators put in on a daily basis, VTA hosted a social media recognition campaign to allow riders to say thank you to their favorite operators and share the goodness.

Prepared By: Fernandino Guevarra
Memo No. 6328
VTA 2018 Marketing Activities

SSTPO Meeting

April 20, 2018
January 2018 Service and Fare Changes

Fare Changes
• New EZfare app
• 2-Hr Transfers with Clipper and EZfare
• Decrease in Youth fares
• Increase in Adult fares

Service Improvements
• Rapid 522
• Lines 72 & 73
• Light Rail (Mountain View – Winchester)
Advertising Efforts - Omnichannel

Digital

Analog

Out of Home

Omnichannel Approach
Awareness
“VTA has EZfare”

Interest
“EZfare is more convenient than cash”

Desire
“Use EZfare when you visit San Jose”

Action
“Download EZfare and receive a free day pass”

Approach - Customer Behavior Model
Ridership – Rapid 522 (billboards)
VTA Bus Lines 72 & 73.
More Frequent.

Starting January 1

• On Weekdays:
  • Every 15 minutes midday.
  • Every 20 minutes in the evening.
  • Service until midnight.

• On Saturdays:
  • Every 20 minutes.
  • Service until midnight.

• On Sundays:
  • Every 30 minutes.
  • Service until 11 p.m.

Find out more at vta.org
(408) 321-2300 • TTY: (408)-321-2330

Ridership – Lines 72 & 73
VTA Light Rail 902. More Frequent.
Experience an even better Mountain View—Winchester Light Rail.
Running every 15 minutes midday on weekdays.
Find out more at vta.org
(408) 321-2300 • TTY: (408)-321-2330

VTA Light Rail Mountain View—Winchester
More Frequent.
Running every 15 minutes midday on weekdays.
### Ridership – Digital Metrics example

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<th>Date</th>
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<td>13.96%</td>
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#### Reporting

- **Report & Measure Clicks By Specific Link**
  - **Hero**: 121
  - **Headline**: 88
  - **Button**: 93
  - **Total**: 302

#### Campaign
- **Valleym Transportation Authority**

#### Targeting
- **A16+ | HHI Under $20K | Chinese, Vietnamese, & Latino | Santa Clara County**

#### Subject Line
- **Let VTA Drive You**

---

**More Frequent.**

Get away from the stress of gridlock!

Catch these VTA routes running every 15 minutes:

Some of the most popular VTA routes are now more frequent:

- **Mountain View to Winchester Light Rail:** Running every 15 minutes Monday–Saturday.
- **Bus Lines 72 (Saratoga/Mountain to Downtown San Jose) and 73 (Union & Capitol to Downtown San Jose):**
  - Running every 30 minutes every day.
  - Service extended to midnight.
- **On Weekends:**
  - Running every 30 minutes on Saturdays.
  - Service extended to midnight.
  - Running every 60 minutes on Sundays.
  - Service extended to 10 p.m.
- **Rapid 502 (Palo Alto to Eastlake):**
  - On Weekdays:
    - Running every 30 minutes early morning and evening hours.
    - Service extended to 11 p.m.
  - On Weekends:
    - Running every 60 minutes early morning and evening hours.
    - Service extended from 6 a.m. to 11 p.m.
  - Sunday service extended from 6 a.m. to 10 p.m.

**Visit VTA | Plan your trip at our website.**
Ridership - Results

522
- +1,282 weekday rides
- +25.9% (1/’18 vs. 1/’17)

72
- +282 weekday rides
- +14% (1/’18 vs. 1/’17)

73
- +425 weekday rides
- +21.8% (1/’18 vs. 1/’17)
Riding VTA just got easier! Use a Clipper card or VTA’s new mobile fare app, EZfare, to purchase a single ride fare and receive up to 2 hours of FREE transfers.

For more information, visitvta.org/EZfare or call (408)321-2300
Ridership – EZfare Results
Report from 11/01/17 through 02/27/2018

<table>
<thead>
<tr>
<th></th>
<th>Sold</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Single Ride</td>
<td>7,836</td>
<td>(79%)</td>
</tr>
<tr>
<td>Day Pass</td>
<td>1,466</td>
<td>(15%)</td>
</tr>
<tr>
<td>Event Ticket</td>
<td>611</td>
<td>(6%)</td>
</tr>
</tbody>
</table>

9,913 sold

iOS
- 837 installs

Android
- 1,400 installs
Ridership – Clipper Card 2-Hour Transfer
Ridership – Clipper Card Results

1/2017
- 1.249M
- Clipper Day Pass = 21,589

1/2018
- 1.237M (-1%)
- +47K Transfers
- Clipper Day Pass = 2,477 (-89%)
## Valley Transportation Authority
### March 2018 Ridership and Fare Revenue Performance

<table>
<thead>
<tr>
<th>Ridership</th>
<th>Monthly</th>
<th>Year-to-Date (calendar)</th>
<th>Prior month</th>
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</thead>
<tbody>
<tr>
<td>Bus</td>
<td>2,347,032</td>
<td>2,569,949</td>
<td>-222,917</td>
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<tr>
<td>Light Rail</td>
<td>702,872</td>
<td>755,112</td>
<td>-52,240</td>
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<tr>
<td>System</td>
<td>3,049,904</td>
<td>3,325,061</td>
<td>-275,157</td>
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### Fare Revenue

<table>
<thead>
<tr>
<th>Revenue</th>
<th>Monthly</th>
<th>Year-to-Date (calendar)</th>
<th>Prior month</th>
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<tr>
<td>Fare Revenue</td>
<td>$2,996,532</td>
<td>$2,839,017</td>
<td>$157,515</td>
</tr>
<tr>
<td>Avg. Fare per Boarding</td>
<td>$0.98</td>
<td>$0.85</td>
<td>$0.13</td>
</tr>
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</table>

### Penetration Rate
- 2016-2017: 45.3%, 44.3%, 43.6%, 44.3%, 46.3%, 46.3%, 46.5%, 43.0%, 40.8%, 42.1%, 45.8%
- 2017-2018: 45.8%, 45.3%, 44.3%, 43.6%, 44.3%, 46.3%, 46.3%, 46.5%, 43.0%, 40.8%, 42.1%, 45.8%

### Clipper Ridership
- 2016-2017: 1,407,900, 1,520,844, 1,358,354, 1,274,078, 1,410,185, 1,469,226, 1,546,408, 1,436,849, 1,223,013, 1,760,337, 1,771,938, 1,397,933
- 2017-2018: 1,407,900, 1,520,844, 1,358,354, 1,274,078, 1,410,185, 1,469,226, 1,546,408, 1,436,849, 1,223,013, 1,760,337, 1,771,938, 1,397,933

### Avg. Fare per Boarding
- 2016-2017: $0.85, $0.85, $0.13, $0.13, $0.13, $0.13, $0.13, $0.13, $0.13, $0.13, $0.13, $0.13
- 2017-2018: $0.85, $0.85, $0.13, $0.13, $0.13, $0.13, $0.13, $0.13, $0.13, $0.13, $0.13, $0.13
SAFETY PROGRAMS UPDATE

Rail System Safety Program Plan (SSPP) – 2018
• Approved by the California Public Utilities Commission (CPUC) March 2018

VTA’s 2017 Internal Annual System Safety & System Security Audit
• VTA’s audit report was approved by the CPUC

VTA Safety Programs & SOPs
• Updated Numerous Safety Programs & SOPs to meet or exceed current CPUC, Cal/OSHA and other regulatory requirements and best industry safety standards/practices.
SAFETY MESSAGES

Avoid Unnecessary Distractions, Rest and Be Safe!

VTA’s Emergency Response Team – At Your Service

3 Apr, 2018 in From the Hub / Safety tagged emergency response

Do you know what to do in the event of an emergency at work? How would you handle a medical situation like a fall or heart attack? As part of its Facility Emergency Plan, VTA has an established volunteer Emergency Response Team (ERT) in each division and at every location. [...]

Fiber Fights Heart Disease

12 Feb, 2018 in From the Hub / Safety tagged fiber / heart disease

Heart disease is the leading cause of death in the US for both men and women. While heart disease frequently has sudden and devastating effects, it is commonly referred to as the silent killer because there can be minimal signs that a problem is going to occur. Heart Disease Risk [...]

What Do You Know About Sexual Harassment Prevention?

3 Mar, 2018 in From the Hub / Safety tagged prevent harassment / sexual harassment

Test your knowledge on the topic of sexual harassment prevention by taking a 6-question online quiz. After you select your answers to all six questions, an explanation of the correct answers will be provided for your review. Take the quiz. If you have experienced or observed sexual harassment in the workplace, [...]

Tips to Stay Earthquake Safe

6 Feb, 2018 in From the Hub / Safety tagged earthquake

Earthquakes can happen at any time without warning. And while we may not know an earthquake is coming, what we do before, during and after an earthquake can make all the difference. Here are a few tips from Ready.gov, the official website of the Department of Homeland Security, on ways [...]

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<td>Dept - Marketing / Bernice Alaniz</td>
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<td>Dept - Environmental Programs &amp; Resource Management / Keelikolani Ho</td>
<td>Annual Sustainability Report</td>
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<td>Division - Planning and Programming / Jason Kim</td>
<td>North First Light Rail Improvements</td>
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<td>6279</td>
<td>Division - Operations / Inez Evans</td>
<td>JWI Apprenticeship Program Update</td>
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<td>Division - Operations / Lalitha Komnar</td>
<td>Transit Operations Performance Report - Q3 FY 2018</td>
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<td>6487</td>
<td>Dept - Transportation Planning / Jim Unites</td>
<td>Light Rail Safety and Speed Pilot Project in Downtown San Jose</td>
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MEMORANDUM

TO: Safety, Security and Transit Planning and Operations Committee
    Santa Clara Valley Transportation Authority
    Board of Directors

FROM: Inez P. Evans, Chief Operating Officer

DATE: April 20, 2018

SUBJECT: Agenda Item 12, Committee Staff Report

Electric Buses have Arrived!

The first five VTA electric buses have arrived. The Bus Maintenance and Engineering staff are in the process of reviewing and accepting the buses. VTA plans to have the electric buses in service by the end of summer.

Light Rail Track Rehabilitation Complete

VTA has completed the repair work on the seven slow zones on the Light Rail system. The Operations Division and Engineering & Program Delivery Division worked closely on scheduling and completing these repairs. Major work was performed from January through March on the seven areas that either had a defect or were in a slow zone. By completing these repairs, VTA was able to speed up the Light Rail service.

Light Rail Vehicle Overhaul Program

The Rail Operations Maintenance team continues the process of performing major, mid-life rehabilitation and overhaul of VTA’s Light Rail Vehicle fleet. As of Monday, April 16, 2018, the LRV Maintenance team has completed the major overhaul on 51 LRV’s, a carbody overhaul on 13 additional LRVs, and 26 LRVs are currently held in the queue for scheduled overhaul.
**Paratransit Vehicle Move to Eastridge**

On Friday, March 9, 2018, the remaining Paratransit Fleet that was operating out of the Paratransit building on Younger transitioned to the Eastridge Paratransit Facility. Approximately 120 vehicles were moved. The vacated building at Younger is being rehabilitated to allow the VTA Light Rail Training department to move into a larger space and conduct the various trainings that are needed throughout the year.

**Operator Classes**

On March 14, 2018, 18 new Bus Operators graduated from Operator training. Currently there are 37 Operator Trainees in a bus training class that started on March 26, 2018 and will graduate on May 23, 2018.

In Light Rail, an Operator class began on January 29, 2018 and currently has 6 students. The anticipated graduation date is April 20, 2018.

**Bus Roadeo & Light Rail Rodeo were a Success!**

On Saturday, March 31, 2018 VTA held its first combined Bus Roadeo and Light Rail Rodeo. The competition for the Light Rail Rodeo was held at the Guadalupe Division while the competition for the Bus Roadeo was held at the Chaboya Division along with the awards ceremony for both. During the competition, Bus Operators showed off their skills by maneuvering 15-ton “broncs” through obstacle courses. The Maintenance teams displayed their skills in various exercises where they had to identify issues within a bus engine and compete in a forklift competition. Qualifying winners will be representing VTA at the 2018 APTA International Bus Roadeo May 4-8, 2018 in Tampa, FL. The winners in each category are as follows:

<table>
<thead>
<tr>
<th></th>
<th>Operators</th>
<th>Maintenance – 1st Place Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Place</td>
<td>Harnam Sidhu</td>
<td>Curtis Rodriguez</td>
</tr>
<tr>
<td>2nd Place</td>
<td>Thomas Dominguez</td>
<td>Michael Faso</td>
</tr>
<tr>
<td>3rd Place</td>
<td>Ron Langston</td>
<td>Jeff Poyer</td>
</tr>
</tbody>
</table>
At the Guadalupe Division, Light Rail Operators and Maintenance employees participated in exercises that include detection and resolution of emergency situations, braking, operating procedures, and finding hidden impediments, among other things. Qualifying winners will represent VTA at the 2018 APTA International Light Rail Rodeo on June 7-10, 2017 in Denver, CO. The winners in each category are as follows:

<table>
<thead>
<tr>
<th>Operators</th>
<th>Maintenance – 1st Place Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Place</td>
<td>Kuljinder Bath</td>
</tr>
<tr>
<td>2nd Place</td>
<td>Hossein Ramirez</td>
</tr>
<tr>
<td>3rd Place</td>
<td>Robert Ainsworth</td>
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<td></td>
<td>Maroun Abi Najm</td>
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<td>Luoc Nguyen</td>
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<td>Rudy Alcantar</td>
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